

---

**Project Title:** Artificial Intelligence Usage in West Branch Schools

**Project Partner:** West Branch Community School District

**Group Members:** Jack Bryson, Emma DeGroote, Will Harter, Sydney Nelkin, Daniela Pintor-Mendoza

---

## ISSUE STATEMENT:

Teaching kindergarten to twelfth grade is the profession that reports the most burnout in the American economy, with forty-four percent of teachers reporting feeling burnout “always or often.” Because of this, over half of teachers say they will leave education sooner than expected.<sup>i</sup> While the emergence of artificial intelligence (AI) programs provides new opportunities to address high rates of teacher burnout, use of AI is a controversial issue in the classroom, as educators remain concerned over academic integrity and educational development risks associated with it. The goal of this project is to provide resources for reducing teacher burnout and improving productivity for educators at West Branch Community School District, using AI, while simultaneously addressing concerns that teachers and parents may have about responsible and ethical usage of artificial intelligence.

## LITERATURE REVIEW

An article by *The New York Times* shows the ethical and administrative dilemmas when it comes to students using AI and describes the success teachers have had with AI.<sup>ii</sup> Using their curriculum, teachers have been able to rapidly develop assignments, learning materials, and examples. Teachers who assign writing have seen a large benefit, as AI allows them to assign more writing practice because the programs provide grammatical review and instant feedback. However, many teachers do not allow their students to use AI, creating concerns about fairness and double standards. One teacher addressed this issue through transparency, as he explains to his class exactly what he uses AI for and modeled ethical and proper AI use in his classroom. Other teachers interviewed highlighted the need for students to be properly educated on AI, as it will be essential for their future roles in the workforce.<sup>iii</sup> This is relevant for West Branch Community School District, as it shows the possible concerns that teachers have surrounding AI, weighed against the possible benefits.

In a Danish Study that was published in the *International Journal of Human-Computer Studies*, students were surveyed regarding their experience with AI. The study was administered across 14 different schools in different regions of Denmark. The study tested multiple hypotheses, two examples being “youngsters who converse with chatbots as friends are lonelier and experience less perceived social support than those who do not engage in friend-like conversations with

chatbots,” and “loneliness predicts chatbot interactions intended to counteract loneliness, whereas low perceived social support predicts chatbot interactions intended to discuss one's feelings.”<sup>iv</sup> The study also documents what students were using these chatbots for. There are many takeaways from this study that could be applied to policy in the United States and specifically West Branch. First, mental health among young people is often cited as a “wicked problem,” in that stakeholders do not have a consensus as to what the primary cause is, and it is the result of a massive number of interconnected issues. Limiting or banning non-utilitarian AI usage among students could be considered to address this problem. There are also character AI bots that exist only for companionship rather than educational or research purposes, and schools could consider blocking these sites on their Wi-Fi. Since West Branch already limits use of technology on school grounds, parents must be informed on how their kids could be using AI outside of the classroom.

Another important consideration in this conversation is potential impediments in development caused by overreliance on large language models (LLMs) by K-12 students. Currently, there is a gap in the literature on the cognitive effects of reliance on AI by K-12 students. However, studies have been done on college students, with potentially concerning results. In one MIT study, “Your Brain on ChatGPT: Accumulation of Cognitive Debt when Using an AI Assistant for Essay Writing Tasks,” students were divided into three groups to write their essays: one using LLMs, one using search engines, and one only using their brain.<sup>v</sup> In this study, brain-only participants demonstrated higher brain connectivity and memory recall, while LLM-using students struggled to accurately quote their own work. While this study was performed on college-age individuals, there are similar worries for K-12 students. This is especially concerning given the formative nature of K-12 schooling for brain development. In considering guidance given to West Branch Community School District, the cognitive development of students should not be overlooked. While AI tools may provide short term ease, they may feasibly jeopardize important brain development of students that they would otherwise receive from instruction without these tools.

## **BACKGROUND**

It is undeniable that the usage of AI is increasing in the classroom. A recent report by the Center for Democracy and Technology stated that eighty-six percent of surveyed students used AI in some capacity during the 2024-2025 school year.<sup>vi</sup> In the same report, seventy percent of surveyed teachers reported feeling worried that AI tools weaken critical thinking and research skills. This is not isolated to a single study – in a Pew Research Study, twenty-five percent of teachers held that AI tools like ChatGPT do more harm than good in education, and only six percent said these tools do more good than harm.<sup>vii</sup> There is an apparent reluctance from educators to see AI as being a useful tool and not a harmful distraction.

Despite this, teacher usage of AI is prevalent in American schools. In a Gallup survey, thirty-two percent of teachers reported using ChatGPT weekly, and twenty-eight percent reported using it monthly or less.<sup>viii</sup> Notably, those teachers who used AI weekly also reported saving an estimated 5.9 hours per week. In a profession with such high rates of burnout (with seventy-eight percent

of surveyed teachers reporting that they have considered quitting since the pandemic), there are potential benefits in AI reducing workload for teachers.<sup>ix</sup>

## **EVOLUTION OF THE ISSUE**

Artificial Intelligence use has exploded as a factor in our economy, with use amongst employees nearly doubling over the past two years.<sup>x</sup> In Iowa, AI found some early growth, with an OpenAI data center built in 2023.<sup>xi</sup> With the growth of AI in the workforce, the movement has translated to education, with the state of Iowa offering workshops for educators to learn about the tool.<sup>xii</sup> Despite some ethical concerns, more teachers are using AI tools in their classroom. Additionally, in the face of concerns about academic integrity and plagiarism, the use of AI amongst students has increased at a significant rate since 2023. As the use of AI continues to grow, schools are seeking how to best integrate AI for the benefit of teachers and learning while not encouraging academic dishonesty. With teachers and students using ChatGPT alike, there is a need for guidelines and education to be given to both groups. West Branch Community Schools have an opportunity to implement guidelines and training about the usage of AI. The principal of West Branch High School shared in an interview that though staff have weekly professional development, no formal training has been provided focused on AI.<sup>xiii</sup>

## **INVENTORY OF ACTIVITIES**

Many schools in Iowa are attempting to establish meaningful AI policy. In Des Moines, Hoover High School has taken various steps to establish AI policies in a mindful manner that considers all parties.<sup>xiv</sup> The school has made an effort to provide education on AI to parents, using the following steps:

1. setting up stakeholder committees comprising faculty, staff, and parents
2. bringing in professionals who are well-informed in these fields to expand the basic understanding of AI
3. introducing challenges for families to take home and implement into their routine, such as putting phones away at the dinner table or completing activities without the use of technology. The intended goal of these challenges is to counter the current culture of technology usage, which today often means parents are unaware of what happens on their screens. Improving communication between students and parents can help prevent possible negative interactions with technology usage both in and outside of school.

The Marion Independent School District has been interested in AI in education since 2023, when the Director of Technology, Peggy Murphy, attended a seminar at Iowa State University for educators on AI. Although recent financial cuts made it challenging, this did not prevent the Marion district from beginning to explore AI in the classroom. The district started forming a task force composed of various teachers who have been assigned to understand and determine how AI can be best used in district classrooms. The goal of this task force is to develop professional development materials for educators on how to define plagiarism when using AI tools, how to recognize plagiarism, how to engage in conversations with students instead of punishing them, student data privacy, and critically analyze AI outputs, similar to the past digital citizenship

instruction. Currently, the district has implemented a minimum of three generative AI lessons each year and has committed a minimum of fifteen percent of breakout sessions at the Marion Independent School District’s Summer Institute dedicated to AI lessons.<sup>xv</sup>

## **BEST PRACTICES**

### **AI Champion Group – Iowa City School District**

The nearby Iowa City Community School District has developed a cost-efficient measure towards evaluating AI programs before classroom implementation. The district has created an “AI Champion” group that meets once a month. The group is comprised of teachers from all district school buildings, designed with the purpose of informing the district of possible AI programs that could be used by teachers for their classrooms. The group evaluates programs based on their practicality and usefulness, and provides recommendations on whether they should be implemented and how they should be used. Because this program uses faculty already employed by the district and operates on a volunteer basis, costs will be minimal.<sup>xvi</sup>

### **AI for Education Summit – Hancock Place School District, MO**

The Hancock Place School District in Missouri hosted an “AI for Education Summit” that included educators from surrounding school districts. The purpose of the summit was to inform educators on effective AI implementation in their classroom, as well as ethical and responsible AI use. With mixed opinions on AI use amongst educators, the event was provided to inform educators how AI operates and how it could be responsibly integrated into the classroom, making the jobs of teachers easier. The summit also sought to inform teachers on how to teach their students about ethical and responsible use, knowing that AI is likely to play a role in the future of the workforce. While no cost estimates are provided for the summit, the district spent \$25,000 on contracts with third-party AI firms that were utilized during the process.<sup>xvii</sup>

### **AI Policy – Linn Marr Community School District**

The Linn-Mar Community School District officially adopted a school policy regarding AI. The policy defines generative AI and acknowledges the risks and benefits it provides in the educational setting for both students and teachers. While setting educational community guidelines, the policy stipulates that federal educational policy, including FERPA, CIPA, and COBRA is complied with when teachers use AI. In simple terms, this means that teachers and other staff cannot input sensitive information of students into AI programs. The policy also prioritizes academic integrity through the use of proper citations and references when AI is used to assist student work.<sup>1</sup> While there are no expenses provided to this school policy, it can be assumed that the cost of this policy minimal.

---

<sup>1</sup> “603.16-R1 - Artificial Intelligence in the Education Environment Regulation | Linn-Mar Policy Services.” *Policies- Linn-Mar Community School District*, <https://policy.linnmar.k12.ia.us/policy/60316-r-artificial-intelligence-education-environment-regulation>. Accessed 19 Nov. 2025.

## **POLICY RECOMMENDATIONS**

### **1. AI Tools for Teachers**

We are supplying West Branch an “AI Tools for Teachers” tip sheet with information about tools and resources to help teachers utilize AI in their classroom [Appendix 1]. This list of tools and resources is designed for either beginner educators or educators looking to begin implementing AI in their classroom. The resource was designed with the intention of saving teachers preparation time in their classroom while staying dedicated to the principle of ethical and responsible use.

This resource sheet contains links to several AI tools for education, paired with explanations and instructions on how to use them. Teachers can use this resource sheet when they wish to use AI to optimize their work. The resource sheet covers tools that create learning materials, provide feedback, and help develop lesson plans, among others. We have also included a resource from The Ohio State University to assist teachers in promoting responsible AI use in their classroom in order for teachers to educate their students on how to best use AI efficiently, safely, and with integrity. By providing clear and easily accessible instructions, teachers will gain more depth of knowledge on AI and how to effectively use it in the classroom, saving themselves work time that can be dedicated to other spheres of teaching, such as classroom management. Teachers can access this resource sheet to expedite and refine their lesson planning, or to find useful tips on starting a dialogue with their students about ethical and responsible AI use.

### **2. Teacher Survey**

We developed a survey [Appendix 2] targeting teachers of grades 5-12, chosen due to West Branch’s 1:1 Technology Initiative, which provides these students in these grades with personal laptops. This increases the likelihood of interaction with AI and allows teachers of these grades to observe AI’s direct impact. The survey should be conducted using the district’s most common surveying tool, like Microsoft Forms or Google Forms for ease of the school district. The questions assess if teachers are using AI and to what extent what tools are being used, and their interest in learning more about AI.

The goal of this survey is to evaluate teachers’ understanding, usage, and opinions of AI in both the classroom and personal contexts. This will inform the West Branch School District of where teachers are currently at with AI. This knowledge will be useful in forming concrete AI policies for teachers that take into account their concerns, preferences, and comfort level regarding such technologies.

### **3. Educational Handout for Parents**

We are providing an educational handout for parents [Appendix 3]. This flyer aims to inform parents how LLMs work, the potential risks involved, and how their children may be using them. It is a brief flyer, taking up the front and back of a single page. The flyer should be distributed at a time in which parents interact with the school directly, such as back-to-school nights. However, it may also be useful to include this information on the school’s website. We suggest this is

distributed yearly, if not more frequently. The only cost of this policy recommendation will be the cost of printing an adequate number of handouts.

The handout aims to provide a baseline level of knowledge for parents who are potentially unfamiliar with this new technology. It is essential for parents to understand this technology to properly be able to screen risks with their students. Then, this handout examines possible risks that many parents may have not realized: privacy, effects on emotional development, bullying, mature content, and extreme or incorrect information. Each of these is expanded briefly to explain where the risk comes from and why it is a possible concern. The handout concludes with some possible constructive uses of AI for students that may have a positive impact, with a few caveats about proper usage. This handout will provide parents with the necessary knowledge to assess their students' AI usage and identify any areas of concern. Armed with the information from this handout, parents will be able to encourage responsible AI use in their household by informing their children and monitoring their usage.

---

<sup>i</sup> Peck, Devlin. "Teacher Burnout Statistics: Why Teachers Quit in 2025: Devlin Peck." RSS. Accessed November 13, 2025. <https://www.devlinpeck.com/content/teacher-burnout-statistics>.

<sup>ii</sup> Goldstein, Dana. "Teachers Worry About Students Using A.I. But They Love It for Themselves." *The New York Times*, 14 Apr. 2025. U.S. *NYTimes.com*, <https://www.nytimes.com/2025/04/14/us/schools-ai-teachers-writing.html>.

<sup>iii</sup> Goldstein, Dana. "Teachers Worry About Students Using A.I. But They Love It for Themselves." *The New York Times*, 14 Apr. 2025. U.S. *NYTimes.com*, <https://www.nytimes.com/2025/04/14/us/schools-ai-teachers-writing.html>.

<sup>iv</sup> Herbener, Arthur Brian, and Malene Flensburg Damholdt. "Are Lonely Youngsters Turning to Chatbots for Companionship? The Relationship between Chatbot Usage and Social Connectedness in Danish High-School Students - Sciencedirect." *ScienceDirect*, International Journal of Human-Computer Studies, Feb. 2025, [www.sciencedirect.com/science/article/pii/S1071581924001927](http://www.sciencedirect.com/science/article/pii/S1071581924001927).

<sup>v</sup> Kosmyna, Nataliya, et al. "Your Brain on ChatGPT: Accumulation of Cognitive Debt When Using an AI Assistant for Essay Writing Task." arXiv, 25 June 2025, doi:10.48550/arXiv.2506.08872

<sup>vi</sup> Vilcarino, Jennifer, and Lauraine Langreo. "Rising Use of AI in Schools Comes with Big Downsides for Students." *Education Week*, 8 Oct. 2025, [www.edweek.org/technology/rising-use-of-ai-in-schools-comes-with-big-downsides-for-students/2025/10](http://www.edweek.org/technology/rising-use-of-ai-in-schools-comes-with-big-downsides-for-students/2025/10).

<sup>vii</sup> Lin, Luona. "A Quarter of U.S. Teachers Say AI Tools Do More Harm than Good in K-12 Education." Pew Research Center, 15 May 2024, [www.pewresearch.org/short-reads/2024/05/15/a-quarter-of-u-s-teachers-say-ai-tools-do-more-harm-than-good-in-k-12-education/](http://www.pewresearch.org/short-reads/2024/05/15/a-quarter-of-u-s-teachers-say-ai-tools-do-more-harm-than-good-in-k-12-education/).

<sup>viii</sup> Ash, Andrea Malek. Three in 10 Teachers Use AI Weekly, Saving Six Weeks a Year. Gallup, 25 June 2025, [news.gallup.com/poll/691967/three-teachers-weekly-saving-six-weeks-year.aspx](https://news.gallup.com/poll/691967/three-teachers-weekly-saving-six-weeks-year.aspx).

- 
- <sup>ix</sup> Stann, Eric. “Study Reveals Why Teachers Are Leaving the Classroom in the Post-Pandemic Era.” Show Me Mizzou, University of Missouri, 25 Feb. 2025, [showme.missouri.edu/2025/study-reveals-why-teachers-are-leaving-the-classroom-in-the-post-pandemic-era/](https://showme.missouri.edu/2025/study-reveals-why-teachers-are-leaving-the-classroom-in-the-post-pandemic-era/).
- <sup>x</sup> Pendell, Ryan. “AI Use at Work Has Nearly Doubled in Two Years.” *Gallup.Com*, 15 June 2025, <https://www.gallup.com/workplace/691643/work-nearly-doubled-two-years.aspx>.
- <sup>xi</sup> Fingerhutt, Matt O’Brien and Hannah. “Artificial Intelligence Technology behind ChatGPT Was Built in Iowa — with a Lot of Water.” *The Des Moines Register*, <https://www.desmoinesregister.com/story/money/business/2023/09/10/chatgpt-was-built-in-iowa-using-artificial-intelligence-microsoft-west-des-moines/70819093007/>. Accessed 19 Oct. 2025.
- <sup>xii</sup> “Artificial Intelligence Professional Development.” *NewBoCo*, 18 Oct. 2025, <https://newbo.co/education/educators/ai-professional-development/>.
- <sup>xiii</sup> Oswald, Sara. Personal Interview. 26 Sept. 2025.
- <sup>xiv</sup> Qynne, Kelley. Group interview. 16 Oct. 2025.
- <sup>xv</sup> Nesmith, Jane. “Local Educators Navigate the Use of AI in Classrooms.” *The Gazette - Local Iowa News, Sports, Obituaries, and Headlines – Cedar Rapids, Iowa City*, 7 July 2025, [www.thegazette.com/stem/local-educators-navigate-the-use-of-ai-in-classrooms](http://www.thegazette.com/stem/local-educators-navigate-the-use-of-ai-in-classrooms).
- <sup>xvi</sup> Merod, Anna. *How an Iowa District Plans to Embrace AI in the New School Year | K-12 Dive*. 15 Aug. 2024, <https://www.k12dive.com/news/ai-new-school-year-iowa-city-schools/724163/>.
- <sup>xvii</sup> Ahmad, Hiba. “Hancock Place School District Hosts St. Louis-Area Educators for AI Summit.” *STLPR*, 25 July 2025, <https://www.stlpr.org/education/2025-07-25/hancock-place-st-louis-area-educators-ai-summit>.

## **APPENDICES**

APPENDIX 1	AI Tools for Teachers
APPENDIX 2	Artificial Intelligence: Teacher Survey Grades 5-12
APPENDIX 3	Parent Guide



## **Appendix 1**      AI Tools for Teachers

## Artificial Intelligence Tools for Teachers

### MagicSchoolAI

**Purpose:** This AI-Powered program allows teachers to save hours in preparation time by offering over 40 different tools that automatically generate lessons and classroom materials based on user inputs.

**Instructions:** Choose a tool from the home page, or search based on what you are looking to create. The home page presents several different tools with a brief sentence explaining what they do. Choose the tool that is most applicable to what you are trying to generate.

**Example:** If you are watching a YouTube video in class and would like students to answer questions based on the video, you can choose the "YouTube Video Questions Generator", upload the link of the video, select the grade of the class you are teaching, and the program will automatically generate questions based on the video fit to student-age skill level.

**Costs:** There is a free program available to educators with over 40 educational tools available. There is a premium version available with more tools for \$8.33 a year.

**Link:** <https://www.magicschool.ai/>

### Grouper

**Purpose:** This AI tool allows teachers to efficiently create a collaborative classroom environment by quickly creating student groups.

**Instructions:** Grouper can randomly generate student groups of any size. You can customize these pre-groupings based on student attributes, such as gender, proficiency, and leadership. Grouper allows you to input student attributes, like leadership or timeliness, to create stronger pairings for group work with a single click. You can also implement preferential information, as you can indicate on Grouper if certain students should or should not be paired in groups for a variety of reasons.

**Costs:** Grouper is free for teachers with a core feature of instantaneous group creation. There is a premium plan, Grouper Pro, for \$6.99 a month. This premium plan allows adding of a co-teacher, unlimited student attributes, and the ability to save groups.

**Link:** <https://grouper.school/>

### QuestionWell

**Purpose:** QuestionWell can generate questions based on a text or reading. This saves teachers the time of preparing questions from a course reading.

**Instructions:** Teachers can simply copy and paste a reading into QuestionWell, and the program will instantly generate multiple-choice and essential questions for students based upon the text. Teachers can add learning objectives and standards to further refine the questions being asked.

These questions can then be exported to a variety of other educational platforms, including Canvas, Google Drive, and more.

**Costs:** QuestionWell is a free program, allowing teachers to submit readings up to 1,000 words. On the premium plan, at \$7 a month or \$70 annually, there is a higher word limit of 10,000. More question options are unlocked, with the inclusion of fill-in-the-blank and more short answer question capacity. You can also upload already existing quizzes for refinement under the premium plan.

**Link:** <https://questionwell.org/>

## MirrorTalk

**Purpose:** MirrorTalk is an AI tool focused on enhancing student reflective exercises, saving teachers time in assignment creation and compelling students to reflect on their learning.

**Instructions:** Teachers can input their learning objectives and classroom topics. From there, MirrorTalk will generate personalized reflection prompts for a group of students. As students reflect, MirrorTalk analyzes their responses and provides immediate feedback. The tool can be used to identify learning gaps, and provide feedback for improvement. The program can allow students to vocally provide their reflection.

**Costs:** A free plan, available for K-12 educators, offers up to 50 AI inputs per month. A paid plan, at \$150 a year, allows unlimited reflections for all levels of education and comes with multilingual support.

**Link:** <https://mirrortalk.ai/>

## Resource from The Ohio State University: Teaching Your Class on Artificial Intelligence

**Purpose:** This resource, courtesy of The Ohio State University's Teaching and Learning Center, provides teachers guidance on how to teach responsible and ethical use of artificial intelligence to students. The resource outlines common concerns over AI use in the classroom and details some tools and platforms that have been vetted by the university. The resource outlines five key strategies for teachers to appropriately discuss artificial intelligence and its applications in the classroom. Finally, the resource lists several conversation starters and classroom activities centered around ethical classroom use.

**Costs:** This resource is cost-free.

**Link:** <https://teaching.resources.osu.edu/teaching-topics/ai-teaching-strategies-having>

## **Appendix 2**      Artificial Intelligence: Teacher Survey Grades 5-12

## **APPENDIX 2**

### **Artificial Intelligence: Teacher Survey Grades 5-12**

Designed for teachers in grades 5-12, this survey is to be conducted using the district's approved and most common surveying tool, ensuring proper anonymity. It should be distributed annually, as the rapid evolution of artificial intelligence may affect the relevance of the questions and require updates to match current priorities.

Survey questions based on the University of Iowa Artificial Intelligence Strategic Planning and Resource Committee (SPARC) previous surveys to students and faculty.

- 1. What is your knowledge of artificial intelligence (AI)?**
  - a. Not familiar at all
  - b. Slightly familiar
  - c. Somewhat familiar
  - d. Very familiar
  - e. Expert
  
- 2. What is your perception of how AI will impact your work?**
  - a. Overwhelmingly positive
  - b. Mostly positive
  - c. Neutral/Unsure/Mixture of positive and negative
  - d. Mostly negative
  - e. Overwhelmingly negative
  
- 3. Please specify what AI training or education you've received.**
  - a. Workshops
  - b. Online courses
  - c. Degree programs
  - d. Other: (please specify)
  
- 4. To what extent are you currently using AI in your work?**
  - a. I'm not using AI
  - b. I'm experimenting with AI on occasion
  - c. I'm using AI regularly for specific tasks
  - d. I'm using AI frequently across many aspects of my work
  
- 5. If you are using AI, what AI tools have you used? Please select all that apply.**
  - a. Chatbots (i.e, Google Bard, ChatGPT, Bing Chat, Claude)
  - b. Code Suggestion Generators (i.e, Git Hub Copilot)
  - c. Image/Art Generators (i.e, Adobe Firefly, DALL. E., MidJourney)
  - d. Research Tools (i.e, ResearchRabbit, Scite AI, Elicit)

- e. Video Generators (Synthesia)
  - f. Other: (please specify)
- 6. Are you using institution-provided AI tools, or personally selected/free/commercial AI tools?**
- a. Free or open-source AI tools
  - b. Personal license for commercial AI tools
  - c. School purchased individual license for commercial AI tools
  - d. School provided AI tools
- 7. What concerns do you have about AI in the classroom? (Please rank in order)**
- a. Plagiarism
  - b. Data privacy
  - c. Automation of manual tasks
  - d. Bias and misinformation
  - e. I have no concerns
- 8. How interested are you in adopting AI more in your work or other areas of your work?**
- a. Very interested
  - b. Interested
  - c. Neutral/not sure
  - d. Not interested
  - e. Very uninterested
- 9. What are the primary barriers to adopting AI in your work? (Please select no more than 5, in rank order)**
- a. Lack of knowledge or training
  - b. Concerns about data privacy or security
  - c. Lack of access to the right tools
  - d. Ethical concerns (e.g., bias, plagiarism)
  - e. Uncertainty about how AI fits into my specific role
  - f. Environmental/Energy concerns
  - g. Discipline specific challenges
  - h. Lack of time
  - i. Lack of interest
  - j. Lack of examples to follow
  - k. Cost
  - l. There are no barriers
  - m. Other: (please specify)
- 10. What kind of support would be most helpful for you to adopt AI or to do more with AI in your work? (Select all that apply in rank order)**
- a. Workshops or training sessions
  - b. Emails and newsletters

- c. Access to more school provided AI tools
- d. Guidelines on ethical use of AI
- e. Examples of how other educators use AI
- f. One-on-one consultations
- g. Other: (please specify)

## **Appendix 3**      Parent Guide





# Understanding Artificial Intelligence (AI) and Large Language Models (LLMs) for Your Child

## Understanding the Terminology

Artificial Intelligence (AI) is an umbrella term that refers broadly to machines or systems designed to perform tasks that typically require human intelligence, such as reasoning, pattern recognition, decision-making, or learning from data. Large language models (LLMs) represent just one branch within that larger AI ecosystem. They are specialized models trained on massive amounts of text to recognize patterns in language, generate human-like writing, answer questions, and perform linguistic tasks.

As the use of AI and LLMs become widespread, it is important that you know how they work and what the implications are for young people who grow up with these tools available.

## How do LLM's work?

LLMs are trained on large datasets to be able to produce human-like text. These models are predictive, meaning that they don't "read" and "write" by human standards, but rather predict the most likely string of words based on the input from the user. These models do not function as a more advanced search engine but rather as a probability calculator that can recognize patterns in data to create strings of text. LLMs are also extremely sensitive to their prompting, which means they are not immune to biases or giving incorrect information. Tools like CHAT GPT do not actually 'know' facts – they reproduce patterns of knowledge.

## What is an AI Chatbot?

A chatbot is a computer program designed to simulate human text or speech. These have existed for many years but have recently become much more powerful and realistic with new Chatbots being powered by LLMs. While AI does not have a mind like a human being, a well-trained AI chatbot can be very convincing to some people. There have been many high-profile cases of children, teens, and even adults forming deep emotional connections with an AI chatbot. In some cases, these incidents have led to feelings of loneliness and self-harm. It is important that your child understands how AI tools may be beneficial, and how some AI tools can be harmful towards their mental health if used irresponsibly.

## Examples of AI Models

### Common LLMs

- ChatGPT
- Claude
- Grok
- Gemini
- Copilot
- Character.ai

### Text-to-Video/Image

- Sora
- DALL-E
- Midjourney
- Runway
- Luma
- Veo

## Possible Risks

**Privacy:** Any image or prompt that is entered into an LLM or text-to-image/video software may be saved for training purposes. This means that if a student shares identifying information with AI, then that is stored on the servers of whichever company owns the AI. This also means that images entered in software will be used by that software to influence how it generates its own images.

**Mental Health and Social Impacts:** There is a potential for young people to become overly reliant upon the social aspects that chatbots can provide. Children/teens who regularly interact with AI chatbots have been observed to feel more social ostracization and loneliness.

**Bullying:** Due to AI text-to-video software, such as apps like Sora AI, there is potential for students' likenesses to be recreated and distributed. There have been cases of AI-generated sexual content of minors being distributed as a means of cyberbullying and harassment.

**Mature content:** Some chatbots allow minor users to engage in sexual conversations despite being under 18. Parents should be aware of programs like SpicyChat that allow users to engage in sexual conversations. Additionally, some social media platforms that students already use may have chatbot features – like Instagram – that allow students to engage in explicit conversations.

## Where AI Goes Wrong

LLMs are susceptible to sharing information that is either extreme, problematic, or flat-out incorrect. In July 2025, Elon Musk's AI (Grok) was tweaked by the CEO to "assume subjective viewpoints sourced from the media are biased." For example, this allowed Grok to create hateful and sexually-explicit false information and images. While these posts have been deleted and Grok's programming updated, it is an example of the harmful and inaccurate information that LLM's can generate. ChatGPT and other LLMs famously struggle with math and algebra; the GoogleAI search engine often shares incorrect information; and LLMs are often incapable of accurately describing what is happening in a video or picture.

## When Can AI Help Your Student?

If allowed by a teacher, AI can be beneficial for a student's learning. Generating content using AI and attempting to pass that work off as their own is unacceptable and can result in academic consequences, but there are ways in which AI can be a positive study tool with adult supervision. These include:

- Breaking up a study session into manageable segments.
- Simplifying a passage into clearer terms.
- Personalizing learning materials by relating them to a student's interests
- Suggesting new ways to approach a problem

It is important for students to have appropriate adult supervision when utilizing AI. Adults working with their student should fact-check and discuss AI-generated responses.